

# SEMESTER COURSE PLAN (SCP)

**BEEF CATTLE PRODUCTION  
(23101130303)**



## **TEACHING TEAM :**

Prof. Dr. Ir. Sudirman Baco, M.Sc.  
196412311989031025

Prof. Dr. Ir. Hastang, M.Si., IPU  
196509171990022001

Dr. Ir Rohmiyatul Islamiyati, MP.  
196508191990032001

Dr. Muhammad Hatta, S.Pt., M.Si.  
196912312005011013

Dr. Zulkharnaim, S.Pt., M.Si  
198504222015041001

BACHELOR PROGRAMME IN ANIMAL HUSBANDRY  
FACULTY OF ANIMAL SCIENCE  
HASANUDDIN UNIVERSITY  
MAKASSAR  
2025

**BACHELOR PROGRAMME IN ANIMAL HUSBANDRY  
FACULTY OF ANIMAL SCIENCE  
HASANUDDIN UNIVERSITY**

**Vision**

Vision of the study program :

Becoming an international standard in livestock education provider based on the Indonesian Maritime Continent

**Vision Strategic**

In accordance with the vision, mission, and objectives that have been set, the Animal Husbandry Study Program of the Faculty of Animal Science sets the following objectives to be achieved:

- a. Improving the quality of learning implementation that is in line with the needs of industry and society based on research and international standards;
- b. Creating networks and partnerships in the development of Animal Husbandry science and technology and its utilization in the implementation of learning;
- c. Producing graduates who have character, vision, creativity and innovation in the field of animal husbandry science and technology with an entrepreneurial perspective.

**Mission**

The mission carried out in the implementation of the Bachelor of Animal Husbandry Study Program, Faculty of Animal Husbandry, Hasanuddin University is

- 1) Organizing quality learning to produce independent and globally competitive Animal Husbandry scholars.
- 2) Developing animal husbandry science for the benefit of the nation.
- 3) Providing a conducive academic climate for implementing education with an entrepreneurial perspective.

**Graduate Profiles**

No	Profile	Description
1	Manager	Graduates who apply concepts and techniques in managing livestock farming and institutions related to livestock businesses such as financial institutions
2	Young Researcher	Graduates who able to apply scientific concepts and methods in solving problems in the development of the field of Animal Husbandry
3	Planners	Graduates who able to prepare potential and problem analysis, as well as formulate plans and strategies for the development of the livestock and related industries
4	Educators	Graduates who have the ability and skills to transfer science and technology to students in the field of animal husbandry
5	Entrepreneur	Graduates who able to apply business in the field of Animal Husbandry as their main business, or business development to support livestock business
6	Bureaucrat	Graduates who are able to organize government duties, especially in the affairs of livestock development

## **Learning Outcomes imposed on the Course**

ILO-4 - Able to apply logical, critical, systematic, and innovative thinking in the context of developing or implementing information technology-based science and technology (GS-01).

ILO-7 - Able to apply livestock science and technology that is oriented towards increasing production, efficiency, quality, and sustainability (SS-01).

## **Course Learning Outcomes (CLO)**

CLO-1: Students are able to plan, manage and develop local resource-based slaughter/meat farming (SLO4 and SLO7)

### **Sub-CLO**

Sub CLO-1: Able to explain the learning contract and the form of learning applied in the learning process and the scope of learning of beef cattle management (CLO-1)

Sub CLO-2: Able to explain & describe the building and equipment needs required in the management of beef cattle (CLO-1)

Sub CLO-3: Able to explain & describe the principles in beef cattle feeding management (CLO-1)

Sub CLO-4: Able to explain & describe the principles in cattle cultivation management (CLO-1)

Sub CLO-5: Able to explain & describe the principles in Buffalo farming management (CLO-1)

Sub CLO-6: Able to explain & describe the principles in goat and sheep farming management (CLO-1)

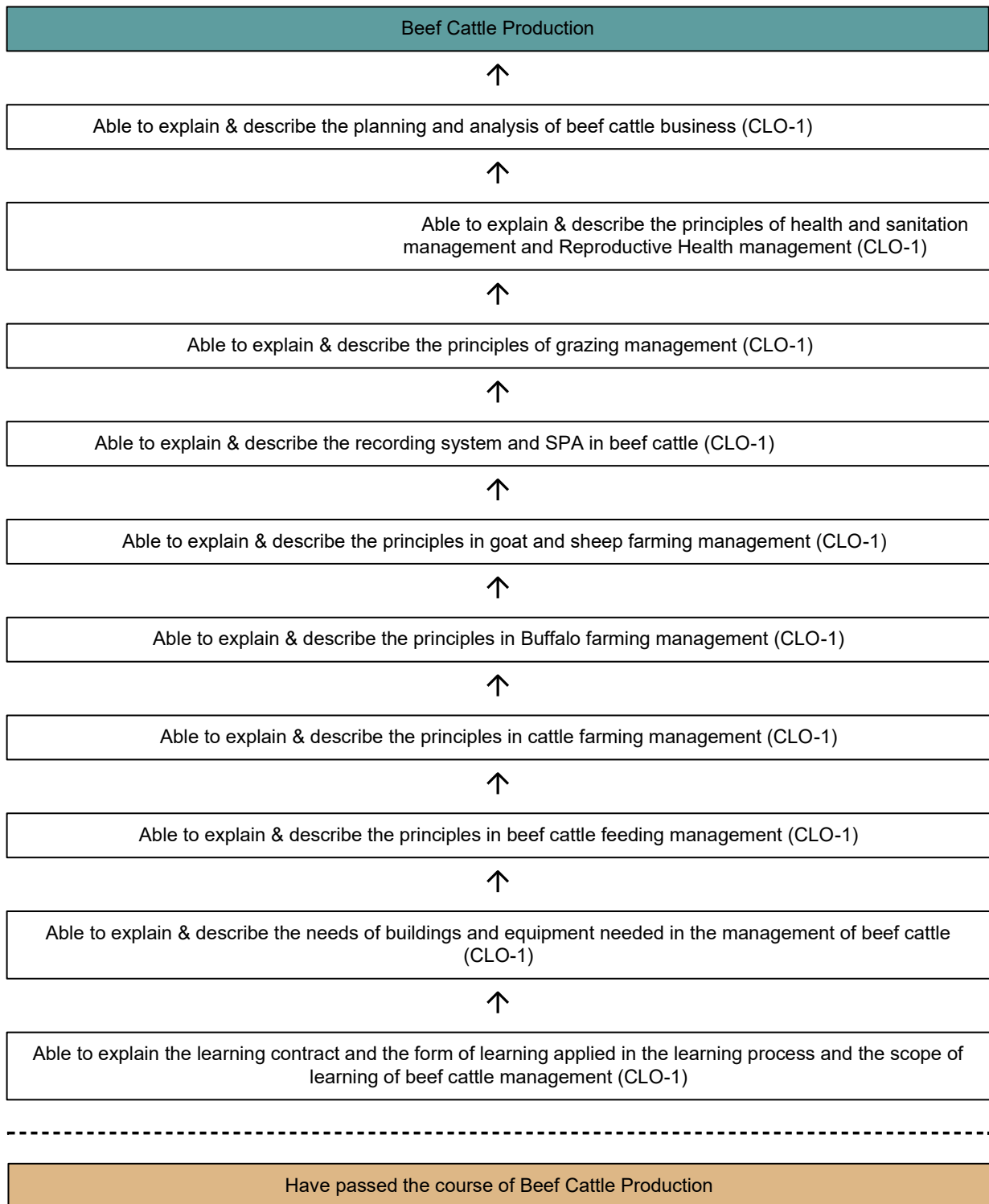
Sub CLO-7: Able to explain & describe the recording system and SPA in beef cattle (CLO-1)

Sub CLO-8: Able to explain & describe the principles of grazing management (CLO-1)

Sub CLO-9: Able to explain & describe the principles of health and sanitation management and Reproductive Health management (CLO-1)

Sub-CLO 10: Able to explain & describe the planning and analysis of beef cattle business (CLO-1)

## Learning Analysis





**HASANUDDIN UNIVERSITY  
FACULTY OF ANIMAL SCIENCE  
BACHELOR PROGRAMME IN ANIMAL HUSBANDRY  
SEMESTER COURSE PLAN**

Course	Code	Course Group	Credit Points	Semester	Date of Preparation
Beef Cattle Production	23101130303	Produksi	3	5	24 September 2024
<b>Authority</b>	<b>Developer Lecturer</b>		<b>Course Coordinator</b>		<b>Head of study Program</b>
	Prof. Dr. Ir. Sudirman Baco, M.Sc., Dr. Muhammad Hatta, S.Pt.,M.Si., Dr. Zulharnaim, S.Pt., M.Si		Prof. Dr. Ir. Sudirman Baco, M.Sc.		Dr. Agr. Ir. Renny Fatmyah Utamy, S. Pt., M. Agr., IPM
<b>Course Learning Outcomes</b>	<b>ILOs that are imposed on the course</b>				
	<b>ILO-4</b>	Able to apply logical, critical, systematic, and innovative thinking in the context of developing or implementing information technology-based science and technology (GS-01).			
	<b>ILO-7</b>	Able to apply livestock science and technology that is oriented towards increasing production, efficiency, quality, and sustainability (SS-01).			
	<b>ILO⇒ Course Learning Outcomes (CLO)</b>				
	<b>Upon completion of this course, it is expected that:</b>				
	<b>ILO-4</b>	<b>CLO-1:</b> Students are able to plan, manage and develop local resource-based slaughter/meat farming.			
	<b>ILO-7</b>	<b>CLO-1 :</b> Students are able to plan, manage and develop local resource-based slaughter/meat farming			
	<b>CLO⇒ Sub-CLOs</b>				
	<b>CLO 1</b>	<b>SUB-CLO-1:</b> Able to explain the learning contract and the form of learning applied in the learning process and the scope of learning of slaughter livestock management.			
		<b>SUB-CLO-2:</b> Able to explain & describe the needs of buildings and equipment needed in the management of beef cattle.			
<b>SUB-CLO-3:</b> Able to explain & describe the principles in beef cattle feeding management					

	<b>SUB-CLO-4:</b> Able to explain & describe the principles in cattle farming management
	<b>SUB-CLO-5:</b> Able to explain & describe the principles in Buffalo farming management
	<b>SUB-CLO-6:</b> Able to explain & describe the principles in the management of Goat and Sheep livestock cultivation
	<b>SUB-CLO-7:</b> Able to explain & describe the recording system and SPA in beef cattle
	<b>SUB-CLO-8:</b> Able to explain & describe the principles of grazing management
	<b>SUB-CLO-9:</b> Able to explain & describe the principles of health and sanitation management and Reproductive Health management
	<b>SUB-CLO-10:</b> Able to explain & describe the planning and analysis of beef cattle business

**Correlation between ILOs/CLOs to Sub-CLOs**

ILOs that are imposed on the course	ILO	SUB CLO	Form Assessment+				Weight	Value	Student Score
			Formative	Summative					
				Group Presentation	Interactive Lecture	Practicum/Field Practice			
ILO-7	CLO-1	SUB-CLO-1		2	2	0	0	2	
ILO-7	CLO-1	SUB-CLO-2		2	14	7	0	14	
ILO-7	CLO-1	SUB-CLO-3		2	14	7	0	14	
ILO-7	CLO-1	SUB-CLO-4		2	14	7	0	14	
ILO-7	CLO-1	SUB-CLO-5		2	14	0	7	14	
ILO-7	CLO-1	SUB-CLO-6		2	14	0	7	14	
ILO-7	CLO-1	SUB-CLO-7		2	7	0	0	7	
ILO-7	CLO-1	SUB-CLO-9		2	14	7	0	14	
ILO-7	CLO-1	SUB-CLO-10		2	7	0	0	7	

		18	40	28	14	100	
<b>Course Description</b>	None						
<b>Learning Materials / Subject Matter</b>	None						
<b>Reference</b>	<b>Key Reference</b>						
	<ol style="list-style-type: none"> <li>1. BIF. 1996. Guideline for Uniform Beef Improvement Program. Seventh Edition. Iowa State University.</li> <li>2. Ensminger, M.E., 1968. Beef Cattle Science. Fourth Edition. The Interstate Printers &amp; Publishers, Inc., Danville, Illinois.</li> <li>3. Richard A. Battaglia. 2007. Handbook of Livestock Management. Fourth Edition. Pearson Prentice Hall, New Jersey.</li> <li>4. Tohmas G. Field and Robert E. Taylor. 2003. Beef Production and Management Decision. Fourth Edition. Prentice Hall, New Jersey.</li> <li>5. O'Mary, C.C. and Dyer A. I. 1978. Commercial Beef Cattle Production. Second Edition. Lea and Febicer. USA</li> <li>6. Schmidt, P.J. and Yeates, N.T.M. 1985. Beef Cattle Production. Second Edition. Butterworth, Sydney, London Boston, Durban, Singapore, Toronto Wellington.</li> <li>7. Alberta Agriculture. 1992. Beef Herd Management. Reference Binder and Study Guide. Alberta Agriculture</li> <li>8. Elwood M. Juergenson.1974. Approved Practices in Beef Cattle Production. Fourth Edition. The Interstate Printers &amp; Publishers, Inc. Danville, Illinois.</li> <li>9. Basit Wello, 2012. Produksi Ternak Potong. Edisi Pertama. Masagena Press. Makassar.</li> <li>10. Basit Wello, 2011. Manajemen Ternak Potong. Edisi Pertama. Masagena Press. Makassar.</li> </ol>						
	<b>Additional Reference</b>						
	<ol style="list-style-type: none"> <li>1. Sugeng, Y. B. 1998. Sapi Potong, Cetakan keenam. Penebar Swadaya, Jakarta.</li> <li>2. James Blakely and David H. Bade. 1985. The Science of Animal Husbandry. Fourth Edition. Terjemahan Indonesia: Bambang Srigandono. Ilmu Peternakan. Edisi ke empat. Gajah Mada University Press. Yogyakarta.</li> <li>3. Manika Wodzicka T. I.M. Mastika, A. Djajanegara, Susan Gardiner dan T.R. Wiradarya. 1993. Produksi Kambing dan Domba Di Indonesia. Sebelas Maret University Press. Surakarta.</li> <li>4. AKK. Petunjuk Beternak sapi Potong dan kerja. Cetakan ke dua. Penerbit Kanisius, Yogyakarta.</li> <li>5. Internet Library</li> </ol>						
<b>Teaching Team</b>	Prof. Dr. Ir. Sudirman Baco, M.Sc., Prof. Dr. Ir. Hastang, M.Si., IPU, Dr. Ir Rohmiyatul Islamiyati, MP., Dr. Muhammad Hatta, S.Pt.,M.Si., Dr. Zulkharnaim, S.Pt., M.Si						
<b>Course requirements</b>							

Week	Sub CLO (End ability of each learning stage)	Assesment		Forms and Methods of Learning [time estimate]		Content	Weight of Assesment (%)
		Indicator	Technique & Criteria	Offline	Online		
1	2	3	4	5	6	7	8
1	Able to explain the learning contract and the form of learning applied in the learning process and the scope of learning of beef cattle management (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b> Understanding of the scope and urgency of the importance of studying beef cattle production</p>	<p><b>Kriteria Formative:</b></p> <p><b>Kriteria Sumative:</b></p> <p>Interactive Lecture (2)</p> <p><b>Assessment Technique:</b></p> <p>Tests and Non-Tests</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning, Collaborative learning, Problem-based Learning</p> <p>1 x 2 x 50'</p>		<p>1. Learning contract</p> <p>2. Urgency of learning slaughter livestock management and the scope of learning in the Slaughter Livestock Production course,</p>	2
2-3	Able to explain & describe the needs of buildings and equipment needed in the management of beef cattle (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b> An understanding of the building and equipment requirements needed for beef cattle management.</p>	<p><b>Kriteria Formative:</b></p> <p><b>Kriteria Sumative:</b></p> <p>Interactive Lecture (2)</p> <p>Group Presentation (5)</p> <p>Practicum/Field Practice (7)</p> <p><b>Assessment Technique:</b></p> <p>Tests and Non-Tests</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning, Collaborative learning, Problem-based Learning</p> <p>2 x 2 x 50'</p>		<p>1. Buildings and equipment</p> <p>2. Shade and cages</p> <p>3. Cattle yard</p> <p>4. Fence and Paddock</p>	14
4-5	Able to explain & describe the principles in beef cattle feeding management (CLO-1)	<p><b>Formative:</b></p> <p>-</p>	<p><b>Kriteria Formative:</b></p> <p><b>Kriteria Sumative:</b></p>	<p><b>Studying:</b></p> <p>Small Group Discussion,</p>		<p>1. Feeding Management</p> <p>2. Nutrient and</p>	14

		<p><b>Sumative:</b> Ability to outline principles in beef cattle feeding management</p>	<p>Interactive Lecture (2) Group Presentation (5) Practicum/Field Practice (7)</p> <p><b>Assessment Technique:</b> Tests and Non-Tests</p>	<p>Case Study, Cooperative learning, Collaborative learning, Problem-based Learning</p> <p>2 x 2 x 50'</p>		<p>feed requirements of beef cattle</p> <p>3. Strategic and ration preparation techniques</p> <p>4. Principles and strategies of feeding in beef cattle</p>	
6-7	Able to explain & describe the principles in cattle farming management (CLO-1)	<p><b>Formative:</b> -</p> <p><b>Sumative:</b> Ability to explain &amp; elaborate principles in beef cattle farming management</p>	<p><b>Kriteria Formative:</b> <b>Kriteria Sumative:</b></p> <p>Interactive Lecture (2) Group Presentation (5) Practicum/Field Practice (7)</p> <p><b>Assessment Technique:</b> Tests and Non-Tests</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning</p> <p>2 x 2 x 50'</p>		<p>1. Beef Cattle Farming Management</p> <p>2. Broodstock, breeding and pregnant and birth management</p> <p>3. Calf rearing and weaning management</p> <p>4. Heifer and stud rearing management</p>	14
8-9	Able to explain & describe the principles in Buffalo farming management (CLO-1)	<p><b>Formative:</b> -</p> <p><b>Sumative:</b></p>	<p><b>Kriteria Formative:</b> <b>Kriteria Sumative:</b></p> <p>Interactive Lecture (2) Group Presentation (5)</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning</p>		<p>1. Buffalo Farming Management</p> <p>2. Broodstock, breeding and</p>	14

		Ability to explain & elaborate on the principles of Buffalo farm management	Case Study (7) <b>Assessment Technique:</b> Tests and Non-Tests	2 x 2 x 50'		pregnant and birth management 3. Calf rearing and weaning management 4. Heifer and stud rearing management	
10-11	Able to explain & describe the principles in goat and sheep farming management (CLO- 1)	<b>Formative:</b> - <b>Sumative:</b> Ability to explain & describe the principles of goat and sheep farming management	<b>Kriteria Formative:</b> <b>Kriteria Sumative:</b> Interactive Lecture (2) Group Presentation (5) Case Study (7) <b>Assessment Technique:</b> Tests and Non-Tests	<b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning  2 x 2 x 50'		1. Goat and Sheep Farming Management 2. Broodstock management, breeding and pregnant and birth mothers 3. Kid rearing management 4. Heifer and stud rearing management	14
12	Able to explain & describe the recording system and SPA in beef cattle (CLO-1)	<b>Formative:</b> - <b>Sumative:</b>	<b>Kriteria Formative:</b> <b>Kriteria Sumative:</b> Interactive Lecture (2) Group Presentation (5) <b>Assessment Technique:</b>	<b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning		Recording System and Performance Analysis System (PAS)	7

		Ability to explain & describe system recording and performance analysis (SPA) in beef cattle	Tests and Non-Tests	1 x 2 x 50'			
14-15	Able to explain & describe the principles of health and sanitation management and Reproductive Health management (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b> Ability to explain and describe the principles of health and sanitation management, reproductive health management</p>	<p><b>Kriteria Formative:</b></p> <p><b>Kriteria Sumative:</b> Kuliah Interaktif (2) Presentasi Kelompok (5) Praktikum/Praktek Lapang (7)</p> <p><b>Assessment Technique:</b> Tests and Non-Tests</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning</p> <p>2 x 2 x 50'</p>		<ol style="list-style-type: none"> <li>1. Health and Sanitation Management</li> <li>2. Sanitation System</li> <li>3. Strategic prevention and management of livestock health in the field</li> <li>4. Reproductive health management</li> </ol>	14
16	Able to explain & describe the planning and analysis of beef cattle business (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b> Ability to plan and analyze a simple beef cattle business</p>	<p><b>Kriteria Formative:</b></p> <p><b>Kriteria Sumative:</b> Interactive Lecture (2) Group Presentation (5)</p> <p><b>Assessment Technique:</b> Tests and Non-Tests</p>	<p><b>Studying:</b> Small Group Discussion, Case Study, Cooperative learning</p> <p>1 x 2 x 50'</p>		<ol style="list-style-type: none"> <li>1. Health and Sanitation Management</li> <li>2. Sanitation System</li> <li>3. Strategic prevention and management of livestock health in the field 3.</li> <li>4. Reproductive health management</li> </ol>	7
							100

**Matrix ILO, CLO, and Assessment Method**

ILO / CLO	CLO-1
ILO-4 (KU1)	Interactive Lecture (Weight 2%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Case Study (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Case Study (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum/Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%)
ILO-7 (KK1)	Interactive Lecture (Weight 2%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Practicum / Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Case Study (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Case Study (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%) Interactive Lecture (Weight 2%)

	Group Presentation (Weight 5%) Practicum/Field Practice (Weight 7%) Interactive Lecture (Weight 2%) Group Presentation (Weight 5%)
--	---

**Evaluation Type and Assessment Weight**

<b>Type</b>	<b>Assessment Weight</b>
Group Presentation	18
Interactive Lecture	40
Practicum/Field Practice	28
Case Study	14
Total	100

**Assessment and Evaluation of Student Achievement of CLO**

ILOs imposed on the Course	CLO	SUB CLO	Form of Assessment*				Weight	Value	Student Score	
			Formative	Sumative						
				Interactive Lecture	Group Presentation	Practicum/Field Practice				Case Study
SLO-7	CLO- 1	SUB-CLO-1		2	0	0	0	2		
SLO-7	CLO- 1	SUB-CLO-2		2	5	7	0	14		
SLO-7	CLO- 1	SUB-CLO-3		2	5	7	0	14		
SLO-7	CLO- 1	SUB-CLO-4		2	5	7	0	14		
SLO-7	CLO- 1	SUB-CLO-5		2	5	0	7	14		
SLO-7	CLO- 1	SUB-CLO-6		2	5	0	7	14		
SLO-7	CLO- 1	SUB-CLO-7		2	5	0	0	7		
SLO-7	CLO- 1	SUB-CLO-9		2	5	7	0	14		
SLO-7	CLO- 1	SUB-CLO- 10		2	5	0	0	7		
				18	40	28	14	100		



**HASANUDDIN UNIVERSITY  
FACULTY OF ANIMAL SCIENCE  
BACHELOR PROGRAMME IN ANIMAL HUSBANDRY**

**STUDENT STRUCTURED ASSIGNMENT PLAN**

<b>Course</b>	Beef Cattle Production				
<b>Code</b>	23101130303	<b>Credit Points</b>	3	<b>Semester</b>	5
<b>Developer Lecturer</b>	Prof. Dr. Ir. Sudirman Baco, M.Sc.				
<b>Task Form</b>	<b>Task Time</b>				
Documents/Magazines					
<b>Task Title</b>					
Principles in cattle farm management					
<b>Course Learning Outcomes</b>					
Sub CPMK-3: Able to explain and describe the principles in beef cattle feeding management (CPMK-1)					
<b>Task Description</b>					
<p>The student assignment is a group assignment to make a Paper Assignment "Principles in cattle farming management" by choosing 1 of the sub-topics: Beef Cattle Farming Management, Broodstock Management, breeding and pregnant and birth mothers, Calf rearing and weaning management, and Heifer and stud rearing management. The preparation of the paper follows the following procedure:</p> <ol style="list-style-type: none"> <li>1) Each group chooses 1 of the sub-topics: Beef Cattle Farming Management, Broodstock Management, breeding and pregnancy and birth management, calf rearing and weaning management, and heifer and stud rearing management. for 1 group.</li> <li>2) Conduct a discussion among group members to identify the process stages for each of the selected sub-topics. Information related to the selected sub-topic can be obtained from textbooks and journals.</li> <li>3) Create a paper with the following systematics:             <ol style="list-style-type: none"> <li>I. Introduction</li> <li>II. Discussion</li> <li>III. Conclusion</li> <li>IV. Literature</li> </ol> </li> <li>4) Group presentation</li> </ol>					
<b>Assignment Method</b>					
1. Conducted in groups using the Small Group Discussion (SGD) learning method.					
<b>Form and Format of Output</b>					
a. Objective: cattle farm management b. Form of Output: Paper					
<b>Indicators, Criteria and Assessment Weight</b>					
<b>Indicators:</b> <ol style="list-style-type: none"> <li>1. Systematics: 10%</li> <li>2. Accuracy of analysis: 25%</li> <li>3. Depth of material: 30%</li> <li>4. Novelty and reputation of library materials: 10%</li> <li>5. Team cohesiveness: 10%</li> <li>6. Mastery of the material: 15%</li> </ol>					
<b>Implementation Schedule</b>					
2 weeks					

<b>Other</b>
-
<b>Reference List</b>
<ol style="list-style-type: none"> <li>1. BIF. 1996. Guideline for Uniform Beef Improvement Program. Seventh Edition. Iowa State University.</li> <li>2. Ensminger, M.E., 1968. Beef Cattle Science. Fourth Edition. The Interstate Printers &amp; Publishers, Inc., Danville, Illinois.</li> <li>3. Richard A. Battaglia. 2007. Handbook of Livestock Management. Fourth Edition. Pearson Prentice Hall, New Jersey.</li> <li>4. Tohmas G. Field and Robert E. Taylor. 2003. Beef Production and Management Decision. Fourth Edition. Prentice Hall, New Jersey.</li> <li>5. O'Mary, C.C. and Dyer A. I. 1978. Commercial Beef Cattle Production. Second Edition. Lea and Febicer. USA</li> <li>6. Schmidt, P.J. and Yeates, N.T.M. 1985. Beef Cattle Production. Second Edition. Butterworth, Sydney, London Boston, Durban, Singapore, Toronto Wellington.</li> <li>7. Alberta Agriculture. 1992. Beef Herd Management. Reference Binder and Study Guide. Alberta Agriculture</li> <li>8. Elwood M. Juergenson.1974. Approved Practices in Beef Cattle Production. Fourth Edition. The Interstate Printers &amp; Publishers, Inc. Danville, Illinois.</li> <li>9. Basit Wello, 2012. Produksi Ternak Potong. Edisi Pertama. Masagena Press. Makassar.</li> <li>10. Basit Wello, 2011. Manajemen Ternak Potong. Edisi Pertama. Masagena Press. Makassar.</li> </ol>

DEFINITION OF 1 CREDIT IN THE FORM OF LEARNING			Time
A	Lecture, Reception, Tutorial		
	Face to Face	Structured Assignment	Independent Learning
	50 minutes/week/semester	60 minutes/week/semester	60 minutes/week/semester
			2,83
B	Seminars or other similar forms of learning		
	Face to face	Self-study	
	100 minutes/week/semester	70 minutes/week/semester	
			2,83
C	Practicum, studio practice, workshop practice, field practice, research, community service, and/or other equivalent forms of learning		
	170 minutes/week/semester		2,83

No	Metode Pembelajaran Mahasiswa	Kode
1	Small Group Discussion	SGD
2	Role-Play & Simulation	RPS
3	Discovery Learning	DL
4	Self-Directed Learning	SDL
5	Cooperative Learning	CoL
6	Collaborative Learning	CbL
7	Contextual Learning	CtL
8	Project Based Learning	PjBL
9	Problem Based Learning & Inquiry	PBL
10	Or other learning methods, which can effectively facilitate the fulfillment of graduate learning outcomes.	